

REMARKS

The present amendment is in response to the Office Action dated June 24, 2005. Claims 1-16, 58, and 60-65 are now present in this case.

The applicants wish to express their appreciation to the Examiner for his indication that claims 8, 58, and 65 would be allowable if amended to overcome a rejection under 35 U.S.C. § 112, second paragraph. These claims have been amended and are believed allowable as presently presented.

Claims 1, 5-6, and 64 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 5,867,485 to Chambers et al. combined with U.S. Patent No. 5,425,050 to Schreiber et al. further combined with a publication by Engels et al. The applicants respectfully traverse this rejection and request reconsideration. While the three references cited in the Office Action are directed to wireless systems, each is directed to a different application and has different design requirements and parameters. Those skilled in the art will recognize that differences in the technology between Chambers, Schreiber, and Engels are not capable of combination in the manner suggested in the Office Action. Specifically, Chambers is directed to a low power microcellular wireless interactive network having a defined coverage area of 1000-2000 feet. (See column 3, lines 21-25.) In contrast, Schreiber is not an interactive system at all, but is directed to a one way television transmission system having a range exceeding 40 miles. (See Figure 8 and column 10, line 59-column 11, line 33.) The teachings of these two references are incompatible and not capable of combination in the manner suggested in the Office Action where only selected bits and pieces of each reference are considered. When the teachings of Chambers and Schreiber are considered in their entirety, they are incapable of combination suggested in the Office Action. Similarly, Engels is directed solely to an indoor communication system. (See Abstract, page 253.) Engels describes the design parameters of a modem capable of such indoor operation, but does not teach or suggest a plurality of base stations and a plurality of consumer premise equipment, as recited in claim 1. Furthermore, it should be noted that Engels teaches directly away

from the claimed system in stating that the network uses TDMA in the uplink and OFDMA in the downlink. (See page 254, column 1.)

The combination of references cited in the Office Action do not teach or suggest a wireless metropolitan area network (MAN) having a plurality of base stations utilizing OFDM wireless communications having a radius of more than 1 mile and less than 10 miles, as recited in claim 1. Furthermore, the combination of references do not suggest a plurality of consumer premise equipment (CPE) assigned to base stations and located within the corresponding coverage area of that base station wherein the CPE has an antenna internally deployed within the premise where the CPE is located. Accordingly, claim 1 is clearly allowable over the combination of Chambers, Schreiber, and Engels. Claims 2-8 are also allowable in view of the fact that they depend from claim 1, and further in view of the recitation in each of those claims.

Claim 64 is directed to a fixed wireless MAN having a plurality of base stations wherein each base station has "a transmitter to transmit orthogonal frequency division multiplexed (OFDM) wireless data communications on a set of channels defined in the frequency range having a communication range with a radius of more than 1 mile and less than 10 miles" as well as "a receiver to receive communications from locations remote from the base stations." As noted above with respect to claim 1, none of the references suggest the coverage range recited in claim 64. Indeed, as discussed above, the differing design objectives and system parameters of the references render them incapable of combination. Chambers is directed to a two way microcellular system with a range of 1000-2000 feet while Schreiber is directed to a one way television transmission system with a range of 40 miles or more. Engels is directed to an indoor wireless network and does not even teach or suggest a plurality of base stations in a plurality of CPE as recited in claim 64. When considered in their entirety, the references are rendered incapable of the combination suggested in the Office Action. Furthermore, none of the references provide any teaching to suggest such combination. Accordingly, claim 64 is clearly allowable over the combination of Chambers, Schreiber, and Engels.

Claims 9-12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Chambers and Engels. As noted above, Chambers and Engels are directed to significantly different technical problems in wireless communications and are incapable of combination in the manner suggested in the Office Action. Specifically, the combination of references do not teach or suggest an outdoor base station unit with a first radio frequency interface and an indoor consumer premise equipment (CPE) unit with a second radio interface, including an indoor antenna, configured to enable non-line-of-sight radio frequency transmission to the base station and non-line-of-sight radio frequency communication from the base station utilizing orthogonal frequency division multiplexing to transmit and receive information.

The Office Action correctly notes that Chambers does not disclose any system capable of non-line-of-sight radio frequency transmission. The addition of Engels, even if such combination were possible, does not teach or suggest the claimed invention. Specifically, Engels is directed an indoor network and does not teach or suggest an outdoor base station and an indoor CPE. Furthermore, Engels discloses a system utilizing TDMA in the uplink and OFDM in the downlink. This teaches directly away from the system recited in claim 9. Accordingly, claim 9 is clearly allowable over the combination of Chambers and Engels. Claims 10-16 are also allowable in view of the fact that they depend from claim 9, and further in view of the recitation in each of those claims.

Claims 60-63 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Chambers and Schreiber. The applicants respectfully traverse this rejection and request reconsideration. As previously noted, the references are incapable of combination in the manner suggested in the Office Action. Chambers is directed to a low power microcell two-way system having a range of 1000-2000 feet while Schreiber is directed to a one-way television transmission system having a range of more than 40 miles. The Office Action cites a passage in Schreiber as purportedly teaching a transmission range within 1-10 miles. However, the cited section (column 13, line 58-column 14, line 17 and Figure 8) describes a temporal spread of signals due to the fact that all transmitters transmit the same signal on the same frequency.

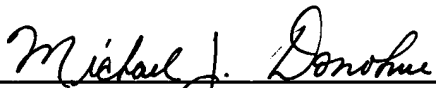
Schreiber describes a temporal spread of the cells were "several miles across." This phrase is ambiguous and does not teach a limitation of greater than 1 mile and less than 10 miles. The term "several" is very subjective and ambiguous. However, Figure 8, also cited in the Office Action, clearly illustrates a range exceeding 40 miles. This is unambiguous. Therefore, the combination of references do not suggest the invention recited in claim 60. Claims 61-63 are also allowable in view of the fact that they depend from claim 60, and further in view of the recitation in each of those claims.

In view of the above amendments and remarks, reconsideration of the subject application and its allowance are kindly requested. If questions remain regarding the present application, the Examiner is invited to contact the undersigned at (206) 628-7640.

Respectfully submitted,

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